

Will you see the aurora borealis in the UK?

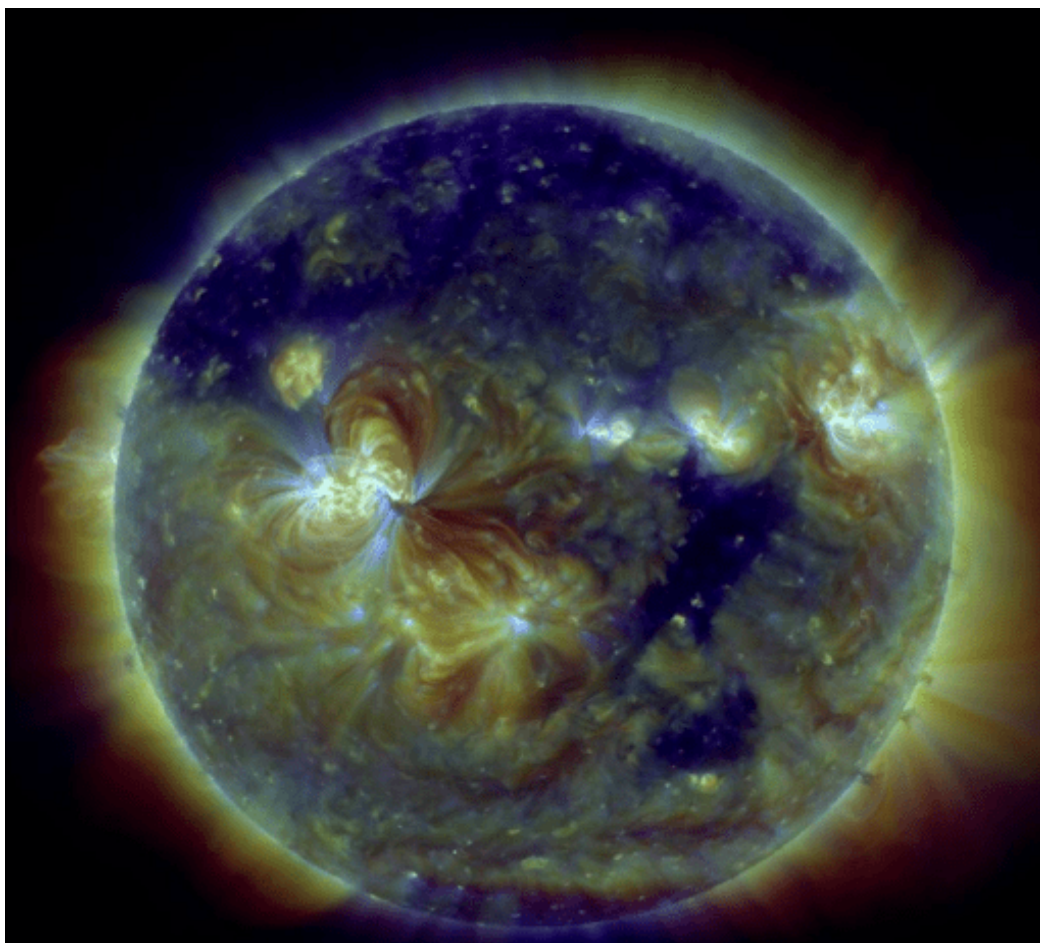
Description

There is a chance you could see the *aurora borealis* ([Northern Lights](#)) tonight in the UK, particularly in the northern half of the country. However, there will be [widespread fog](#) tonight (Monday 2 November), which could be dense in places and might affect your chances of seeing the lights.

It is just a month since the last sighting of the *aurora borealis* here in the UK but the return of a large coronal hole to the Earth facing side of the Sun means our chances of seeing the Lights have again increased.

What are these phenomena?

Firstly, the Sun goes through an 11 year solar cycle, from solar minimum, through solar maximum and back to solar minimum. We are now in the declining phase of the solar cycle following the solar max which occurred in early 2014. During the current phase of the solar cycle coronal holes that begin the cycle in the Sun's 'polar' regions have now migrated towards the Sun's equator, meaning they are on a similar line of latitude to the Earth (i.e. facing the planet rather than directed north and south out of the solar system). These coronal holes give rise to high speed solar wind streams that buffet the Earth, disturbing the Earth's magnetic field.



Coronal hole 2 November 2015. Image courtesy of NASA

In other parts of the solar cycle these disturbances are largely as a result of coronal mass ejections, which can give larger magnitude disturbances than these high speed streams.

Secondly the season of the year has an influence. The science behind this is not fully understood, but the two equinoctial periods in spring and autumn tend to produce an increase in aurora compared with winter and summer.

What does this mean for the UK?

We are now in a period, lasting a few weeks, where these two factors are working together to increase the chances of geomagnetic disturbances, which in turn bring with them the *aurora*. The strength of the disturbance directly relates to how far south the *aurora* is visible (or how far north if you are in the southern hemisphere), and of course you need [clear skies](#) to see it.

Keep an eye on our [space weather forecasts](#) and if there's a chance of seeing the aurora in the UK we'll let you know.

The Met Office works closely with the [British Geological Survey](#) to forecast these geomagnetic events and the BGS website provides '[Tips on viewing the Aurora](#)'

Date Created

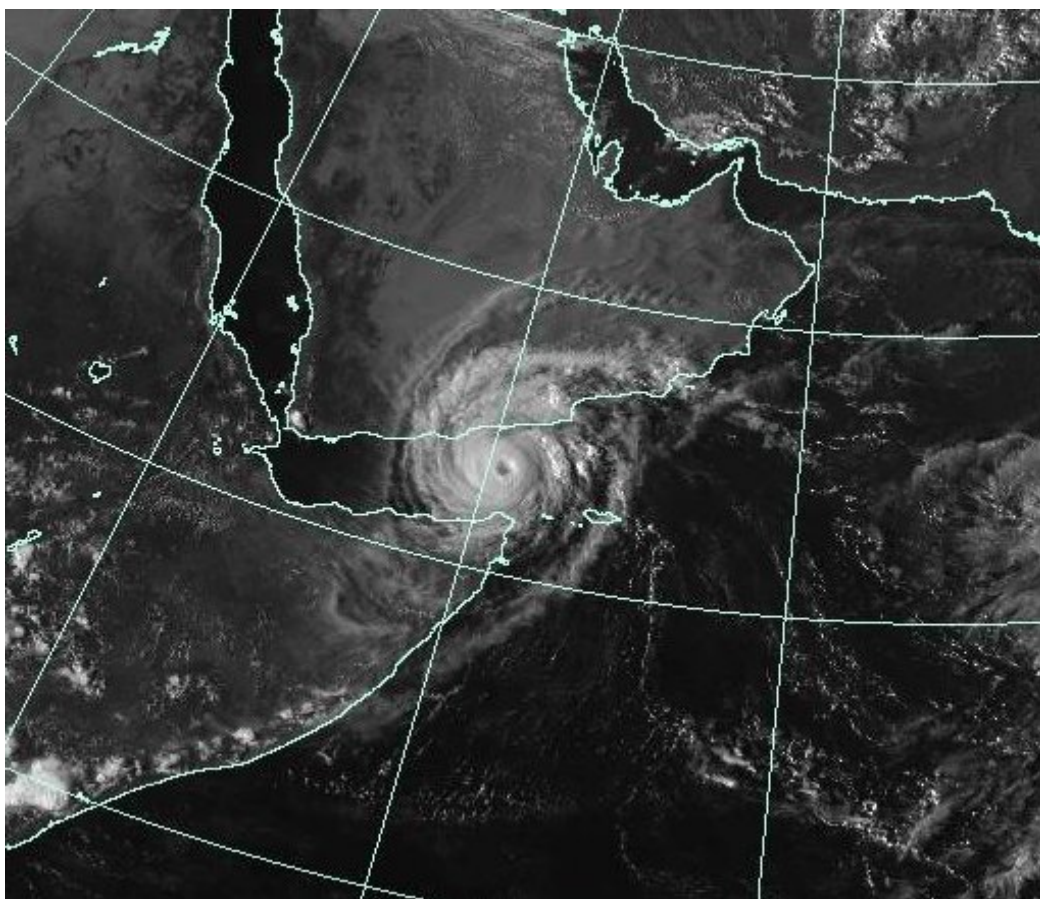
November 2015

Cyclone Chapala nearing landfall over Yemen

Description

As reported in our [blog last week](#), Cyclone Chapala formed in the Arabian Sea and became the second strongest cyclone on record in this region with estimated peak winds averaged over one minute of 155 mph. Only Cyclone Gonu in 2007 was more intense. Since then Chapala has weakened slightly, but still has winds in excess of 100 mph.

Chapala has been moving westwards and is now moving into the Gulf of Aden. Landfall is expected over Yemen early on Tuesday 3 November UK time with winds still expected to be at least of hurricane strength (75 mph or more). This region has climatologically very low annual rainfall totals (approximately 50 mm), but could receive several times this amount from the cyclone, which raises the possibility of flash flooding in areas not used to much rain. Although central and eastern Yemen has a relatively sparsely populated coastline, the city of Al Mukalla is close to the projected location of landfall.



Cyclone Chapala at 1230 UTC on 02 November 2015

The Arabian Sea normally only produces three or four tropical cyclones per year at most. Some years there are no cyclones at all and often they do not reach hurricane strength. Thus for a cyclone of this

intensity to be moving directly into the Gulf of Aden with a likely landfall over Yemen is a rare event – but is it unprecedented?

Records back to the 1980s show that no tropical cyclones of tropical storm intensity or greater (winds over 39 mph) have made landfall over Yemen. However, in 2008 a tropical depression did cross the coast. Although winds were not strong, it brought heavy rain, flooding and caused many fatalities in Yemen.

To the east of Yemen, the neighbouring country of Oman has seen several landfalls of tropical cyclones. In 2002 a weak tropical storm made landfall just on the Oman side of the border with Yemen. The two strongest cyclones to make landfall over Oman were Gonu (2007) and Phet (2010), but both of these were over the north of the country well away from where Chapala is located.

For a tropical cyclone to navigate directly into the Gulf of Aden takes a very precise track. The most recent to do this was Bandu in 2010, but it was weak and dissipated without making landfall.

Records prior to the 1980s are considered less reliable due to poor satellite data coverage, but there are a few examples of storms which entered the Gulf of Aden. There is sparse detail of cyclone intensities this far back, but no evidence of any which entered the Gulf of Aden or made nearby landfall at an intensity as high as that currently exhibited by Cyclone Chapala.

Therefore, using the historical information available it can be concluded that Chapala is the strongest cyclone on record to enter the Gulf of Aden and will likely be the strongest on record to make landfall over Yemen if current forecasts are correct.

Official warnings for the latest tropical cyclones in the Arabian Sea are produced by the [India Meteorological Department](#). The Met Office routinely supplies predictions of cyclone tracks from its global forecast model to regional meteorological centres worldwide, which are used along with guidance from other models in the production of forecasts and guidance. We also provide updates on current tropical storms via [@metofficestorms](#) on Twitter.

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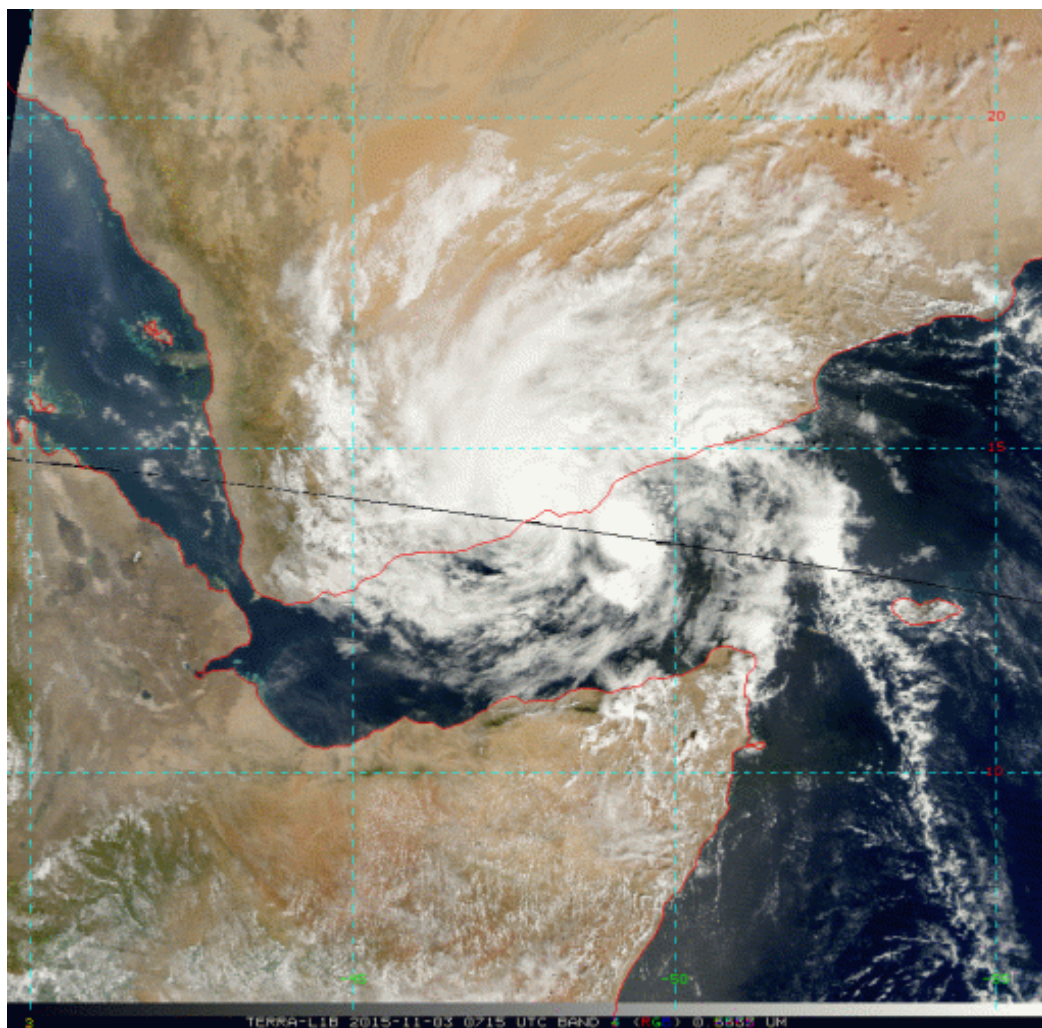
November 2015

Cyclone Chapala brings flooding rains to Yemen

Description

Our [blog yesterday](#) reported on the imminent landfall of Cyclone Chapala which was located in the Gulf of Aden. As expected the cyclone made landfall over Yemen in the early hours of Tuesday UK time. Winds averaged over one minute were estimated to be near 75 mph at landfall which is equivalent to a category 1 hurricane.

However, it is the rainfall which poses the biggest threat. The coastal strip of Yemen is usually very dry with approximately 50mm (2") rain per year. Chapala is likely to produce 100-200mm widely and as much as 500mm in some locations. Although Chapala has weakened to a tropical storm it has become very slow-moving near the coast which increases the threat from heavy rainfall.



Cyclone Chapala at 0715 UTC on 03 November 2015

Image courtesy of NASA

Observing stations are few and far between in this part of the world, but images and videos being posted in online media indicate that flooding is occurring in populated areas under the path of the cyclone such as the city of Al Mukalla.

The seemingly endless destruction and flooding caused by [#Chapala](#) in Mukalla.
pic.twitter.com/kEiwoQJYM6

— Iona Craig ????? (@ionacraig) [November 3, 2015](#)

The last time heavy rains from a tropical cyclone occurred in this region was 2008. This event caused much destruction and loss of life even though it was only classified as a tropical depression. Cyclone Chapala was a much stronger cyclone and thus has a much greater potential for disruption and damage.

Given the disruption caused by Cyclone Chapala, there is heightened interest in an area of disturbed weather developing to the west of India. This has the potential to develop into a tropical storm and latest forecasts suggest it will move west across the Arabian Sea. It is too early to be sure about the likely intensity and precise track of this disturbance, but it is being watched closely for further development.

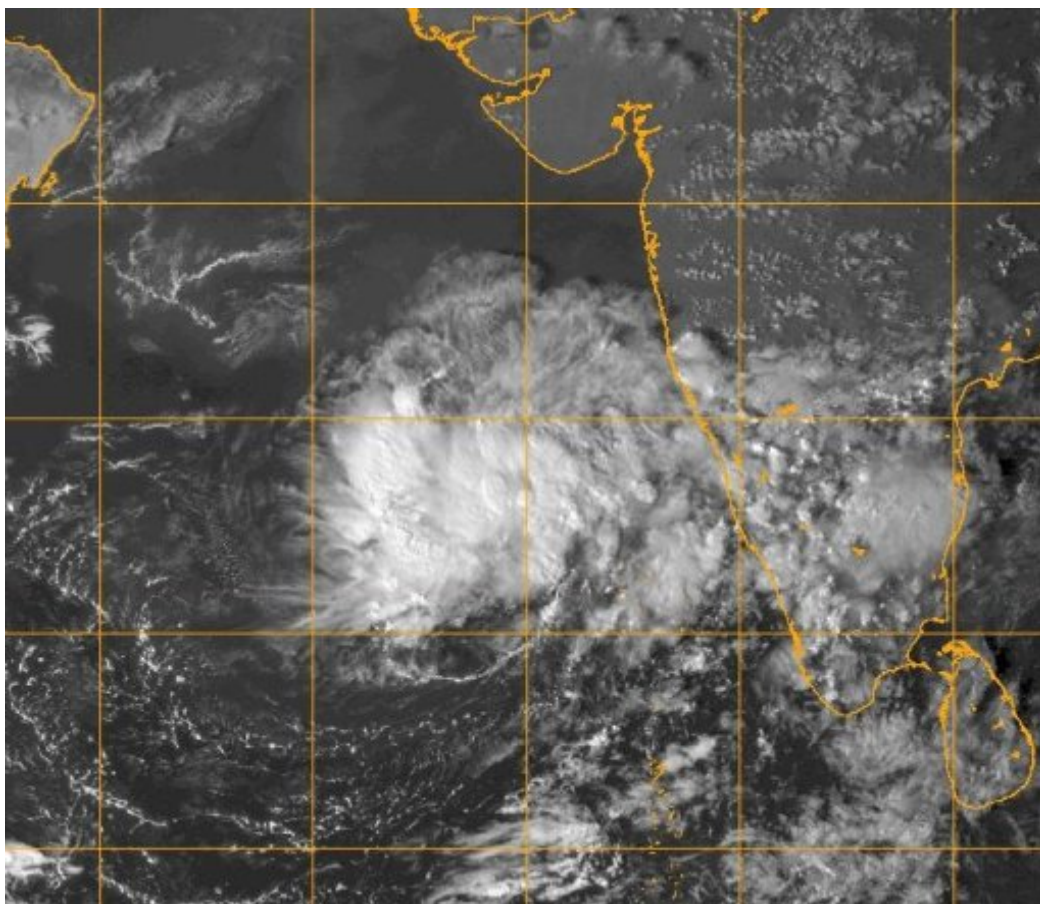


Image of Arabian Sea at 1130 UTC on 03 November 2015

Image courtesy of US Naval Research Laboratory

Official warnings for the latest tropical cyclones in the Arabian Sea are produced by the [India Meteorological Department](#). The Met Office routinely supplies predictions of cyclone tracks from its global forecast model to regional meteorological centres worldwide, which are used along with guidance from other models in the production of forecasts and guidance. We also provide updates on current tropical storms via [@metofficestorms](#) on Twitter.

Date Created

November 2015

Is the first officially named storm heading towards our shores?

Description

UPDATED: 11 NOVEMBER 2015

Storm Abigail has now been officially named and is expected to bring winds in excess of 80mph across the far north of the UK on Thursday evening into Friday and has the potential to cause some disruption. You can find out more [here](#)

Original blog from 6 November 2015:

Headlines in some newspapers are suggesting storms at the weekend will be the first officially named storms of the winter.

Currently the Met Office and Met Eireann have not issued severe weather warnings for the strong winds this weekend, and we have not named the storms heading towards the UK and Ireland.

However we are continuing to monitor the developing weather situation, and will let everyone know when any storm is officially named.

We are expecting unsettled weather this weekend, with spells of rain and strong to gale force winds at times.

The current forecast is for southern parts of the UK are expected to see the strongest winds on Saturday with 40-50mph gusts along parts of the south coast of England.

Meanwhile during Sunday into Monday the north and northwest of the UK is likely to experience the windiest conditions. Here gusts of 50-60mph are possible.

You can keep up to date with the latest forecast and warnings on our website.

Date Created

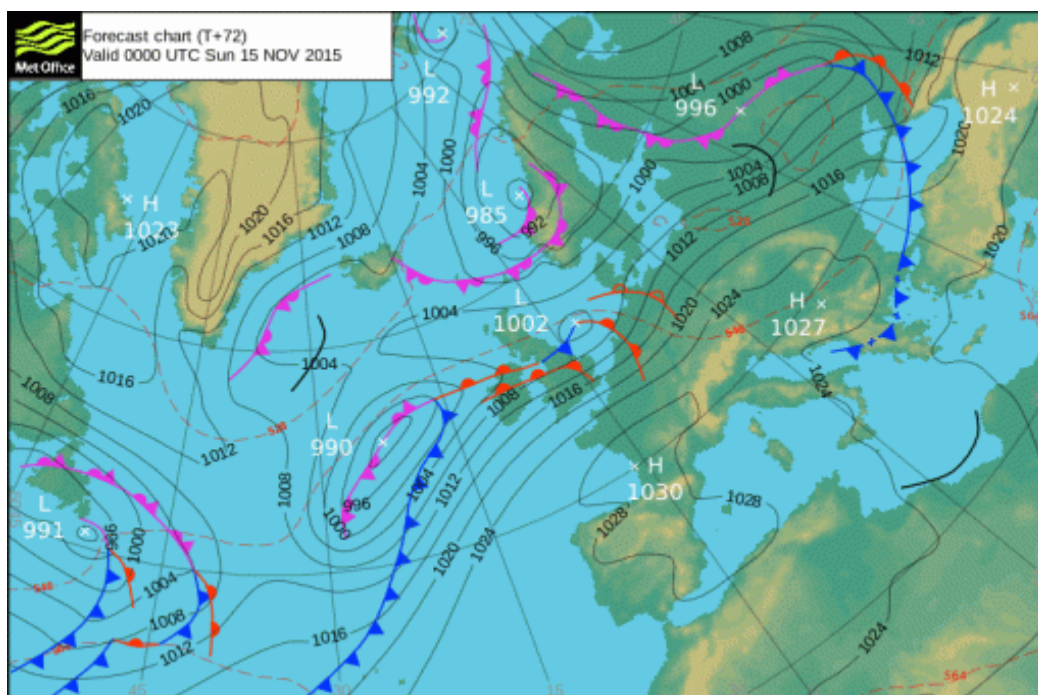
November 2015

Wet weekend for parts of the UK

Description

Heavy rain is expected across parts of north Wales, northwest England and southwest Scotland on Saturday into Sunday, clearing to the southeast on Monday. We have issued a [yellow weather warning](#) for rain for these areas, while the [Environment Agency](#), [Natural Resource Wales](#) (NRW) and the [Scottish Environment Protection Agency](#) (SEPA) are assessing the potential flood risk.

A slow moving frontal system is bringing moist tropical air across the UK from the west resulting in some heavy and persistent rain, especially over exposed hills. Parts of the warning area could see 70-100 mm of rain, with some of the more exposed parts of north Wales and northwest England possibly seeing as much as 150-200 mm through the period.



Pressure Chart 15th November 2015

The Environment Agency is concerned that this amount of additional rainfall falling on to already saturated ground could well lead to flooding, either from standing water, or from rivers bursting their banks. Flood warnings have been issued for parts of northern England.

NRW are planning to put flood risk management procedures in place if required and will issue Flood Alerts and Warnings if rivers reach trigger levels. The warnings are updated on the NRW website every 15 minutes.

The warnings will be kept under review and adjusted should the weather system change or develop and potential impacts vary.

Date Created

November 2015

This weekend's UK rainfall

Description

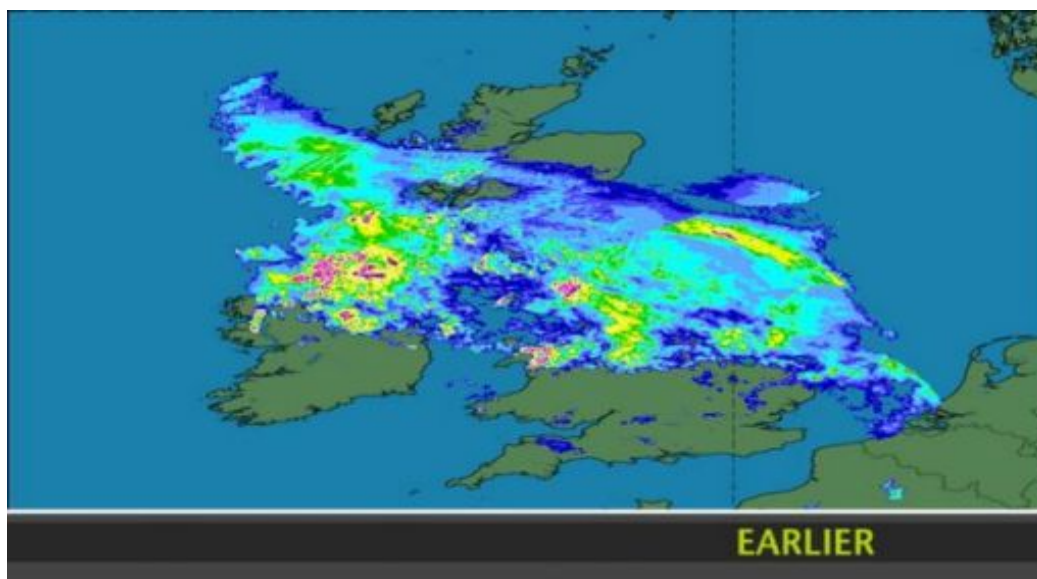
Following the heavy rainfall over the weekend, here are the latest rainfall totals:

Site Name	Area	48hr Rainfall total 9am Sat to 9am Mon (mm)
Capel Curig	Gwynedd	106.0
Lake Vyrnwy	Powys	82.0
Keswick	Cumbria	81.6
Blencathra	Cumbria	72.6
Tyndrum	Perthshire	72.4
Shap	Cumbria	69.8
Patley Bridge	North Yorkshire	69.2
Bala	Gwynedd	66.0

With more unsettled weather on the way this week bringing further rain and strong winds, keep up to date with the [latest forecast](#) for your area and see the latest [National Severe Weather Warnings](#).

[Heavy rain](#) has fallen widely throughout the night across much of north-west England, with the heaviest being over some of the higher ground in Cumbria. The Environment Agency had recorded rainfall totals of 178mm in 12 hours by 5 am this morning in Cumbria.

[National Severe Weather Warnings](#), still in place for parts of northern England, southern Scotland and Northern Ireland, are valid until this evening when the rain will start to clear out to the southeast.



Rainfall radar image 10pm 14 November 2015

The [Environment Agency](#), [Natural Resource Wales](#) (NRW) and the [Scottish Environment Protection Agency](#) (SEPA) are continually monitoring the flood risk as this rainfall makes its way through the river network.

The amber warning issued for parts of North Wales has now been lifted. However a yellow severe weather warning is still in place until 10 pm this evening. Met Office rain gauges recorded 76mm in the 24 hour period up to midday today (Sunday) at Capel Curig in Snowdonia.

Warnings are constantly under review and adjusted should the weather system change or develop and potential impacts vary.

Regions/Country	Rainfall gauge	24hr rainfall total 9am Sat to 9am Sun
Cumbria	Keswick	60mm
Cumbria	Spadeadam	45.8mm
North Yorkshire	Grimwith	65.4mm
West Yorkshire	Thornton Moor	70mm
Lancashire	Colne	60.2mm
Wales	Capel Curig	67.2mm
Northern Ireland	Castlederg	42,6mm
Scotland	Threave	48mm

Many parts of northern and central UK will continue to see rain today, some of it heavy, especially within the warning areas. You are advised to keep up to date with the [latest forecast](#) information for your area so you can plan and prepare for the expected weather.

The Environment Agency, NRW and SEPA are still concerned that additional rainfall on to already

saturated ground could well still lead to flooding and you are advised to keep up to date with the latest flood warnings and advise.

This weekends heavy rainfall heralds the start of an unsettled week as a series of low pressure systems are expected to move across the country. The first will arrive late Monday before another brings stronger winds and rain on Tuesday and another system brings rain on Wednesday. [National Severe Weather Warnings](#) have been issued for some of these systems given the now saturated ground over parts of the UK and will be updated in the coming days. Meanwhile the weather is expected to turn colder for many by the end of the week.

Date Created

November 2015

Warm start to November

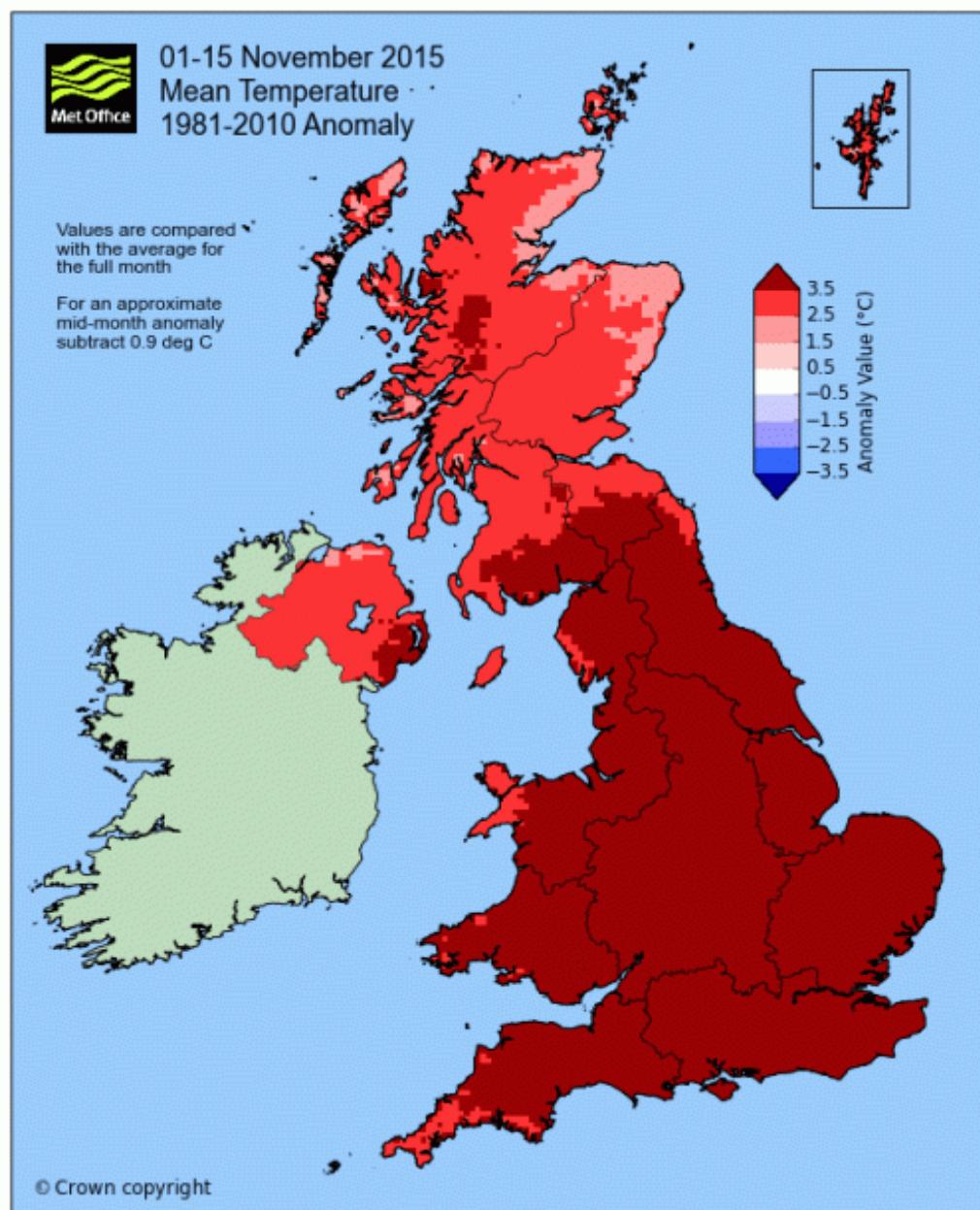
Description

Early provisional figures* (1-15 November) show the first half of November has been very mild with maximum daily temperatures 3.8C above average for the UK

Central England Temperature data set shows the start to the month has been the second warmest since this record began in 1772.

Local temperature records have been broken at various stations with only November 1938 seeing a warmer start to the month.

There has been an absence of frosts in almost all areas, largely because a humid south-westerly airflow means the weather has been cloudy and there have been very few clear nights.



MeanTemp 1-15 November 2015

The increased cloud means most areas have seen very little in the way of sun, with levels well below normal across southern and central England and also south-west Scotland. At this time in the month we would expect to see 50% of the monthly average however very few places have had as much as this and the UK as a whole has seen just 32% and Wales has seen less than half the sunshine we would expect mid month. In the case of southern England it has also been remarkably dull, with some stations having only had 10 hours or less of bright sunshine in 15 days.

For many the start of the month has been wet, with the UK as a whole having had 75% of the whole months average rainfall (we would expect to see 50% at this time of the month). Parts of southern & central Scotland, the Lake District, Pennines and Snowdonia are among the areas already well above their whole-month average. However it was not a wet picture across the whole country, north-east

Scotland and most of southern & eastern England have had slightly less rain than would be expected by this point in the month.

EARLY 1-15 Nov 2015	mean temperature		sunshine duration		precipitation	
	Act	Anom	Act	Anom	Act	Anom
	degC	degC	hours	%	mm	%
Regions						
UK	10.0	3.8	18.1	32	90.5	75
England	11.2	4.3	17.5	27	59.8	68
Wales	10.7	3.9	20.3	36	128.5	79
Scotland	8.0	3.0	18.4	40	132.5	80
N Ireland	9.6	3.1	18.3	34	83.1	74

For the rest of November indications are that after an unsettled week the weather will turn colder with temperatures dropping nearer to the expected average for November if not a little below.

However milder conditions look likely to return for a time at the end of the month with rain and strong winds for much of the UK.

Please note that these provisional figures, especially for rainfall & sunshine, are subject to revision. Anomalies are expressed relative to the 1981-2010 averaging period.

*Data from the Met Office's UK digitised records dating back to 1910.

Date Created

November 2015

Storm Barney highest wind speeds

Description

Storm Barney swept across the southern half of the UK as forecast yesterday evening, bringing gusts of up to 85mph, and has now left our shores.

[Thousands of homes were left without power](#) in Wales, the Midlands, and in southern and eastern England. Damage caused by wind also caused [disruption](#) to rail services, flights and ferry crossings.

The table below shows the highest wind speeds recorded at Met Office observing sites between midday yesterday and 6am today:

UK MAX GUST SPEED 17 NOV 1200 -18 NOV 0600

SITE NAME	AREA	ELEVATION (M)	MAX GUST SPEED (MPH)
Aberdaron	Gwynedd	95	85
Capel Curig	Gwynedd	216	84
High Bradfield	South Yorkshire	395	83
Lake Vyrnwy	Powys	360	83
Pembrey Sands	Dyfed	3	79
Mumbles Head	West Glamorgan	43	77
Avonmouth	Avon	9	75
Aberporth	Dyfed	133	74
Needles, Old Battery Valley	Isle of Wight	80	73
	Gwynedd	10	73

Storm Barney viewed from space as it crossed the UK:

[#StormBarney](#) brought a top wind gust of 85mph to Aberdaron yesterday
<https://t.co/X2CJ2ew6RV>

— Met Office (@metoffice) [November 18, 2015](#)

You can record your observations and report impacts of Storm Barney on [Met Office WOW](#)

Date Created

November 2015

Turning colder for this weekend

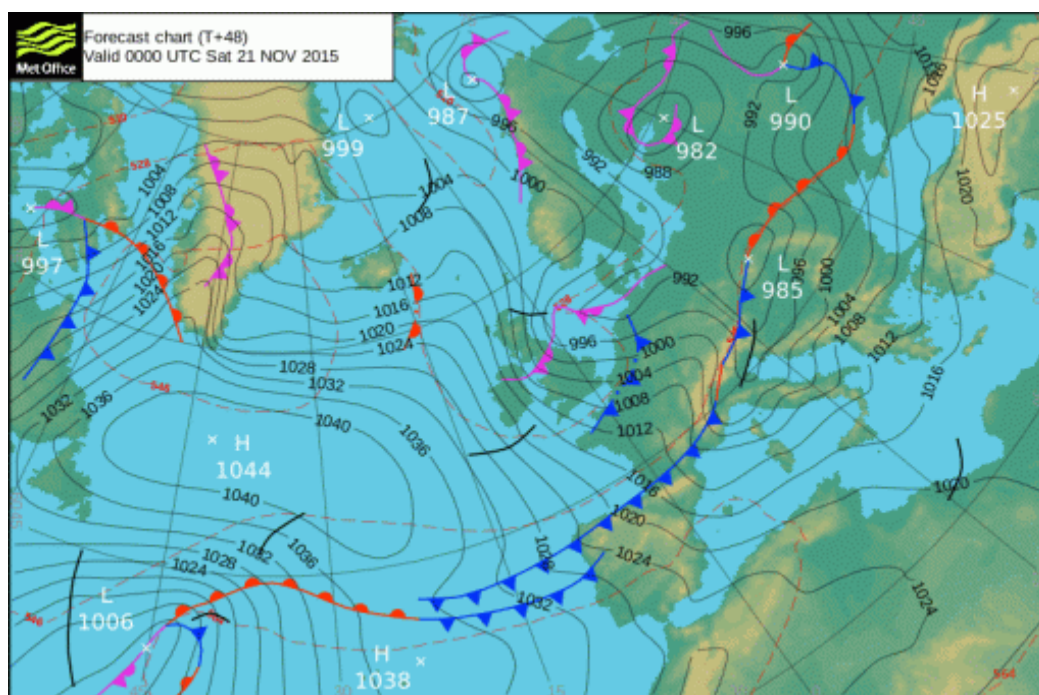
Description

Cold weather is expected this weekend courtesy of an arctic maritime airmass spreading across the country from the north. Everyone will notice a change in the weather after the [second mildest start to November on record](#).

On Friday the cold air will begin to spread southwards with showers falling as snow over high ground in the north and increasingly to lower levels here later. Across northern and eastern Scotland and the northeast of England accumulations of 1-4cm are likely in places at low levels, whereas above around 150m around 5-10cm could accumulate. Furthermore, overnight Friday and into Saturday other areas of the UK could see snow, with some accumulations possible, mainly over high ground.

Strong to gale force north or northwesterly winds are also likely Friday night and Saturday across central and southern Britain and will enhance the cold feel in what will be the coldest air of the season so far. There is a risk of severe gales with gusts of 60-70mph in the most exposed locations.

Yellow 'be aware' [National Severe Weather Warnings](#) have been issued for the risk of impacts as a result of the snow and wind.



Pressure chart for midnight Saturday 21 November 2015

By Saturday the cold air will be in place across all parts of the UK with a mixture of sunny spells and wintry showers likely over the rest of the weekend, with any settling only likely to be temporary because the ground is so warm after the recent mild spell. However, many places inland will avoid the

showers and see some good sunny spells. To see what weather you can expect in your area, check out our [forecast](#) pages.

In a stark contrast to recent days when temperatures have been well above average for the time of year, we can expect temperatures to be below average with maximum daytime values of around 3-7 degrees Celsius. Overnight minimum temperatures are likely to drop below freezing away from coasts, to give a widespread frost, with the risk of some icy patches where showers have fallen during the day.



Chief Operational Meteorologist Frank Saunders said: “With strong winds and some snow forecast for this weekend there is the likelihood of some difficult driving conditions and disruption to transport. There remains some uncertainty regarding the strength of the wind and snow amounts and so if you have travel plans over the weekend we’d advise that you keep an eye on the [warnings](#) for your area.”

Although this will be the first widespread cold spell of the season, it is fairly typical for mid-late November and it’s [not unusual to see snow](#) to lower levels in the north of the UK in late autumn. In recent years the most notable snow event was in [late November 2010](#) when there was lying snow across parts of northern and eastern Britain.

This cold spell will be fairly short-lived with temperatures expected to return to more typical values for the time of year early next week with the weather remaining unsettled.

Date Created

November 2015

Brief cold snap this weekend

Description

It will turn cold as we head into the weekend, courtesy of an arctic maritime air mass spreading across the country from the north. Yellow 'be aware' [National Severe Weather Warnings](#) have been issued for a risk of impacts as a result of both snow and wind. Keep up to date with the weather for your area using our [forecast](#) pages.

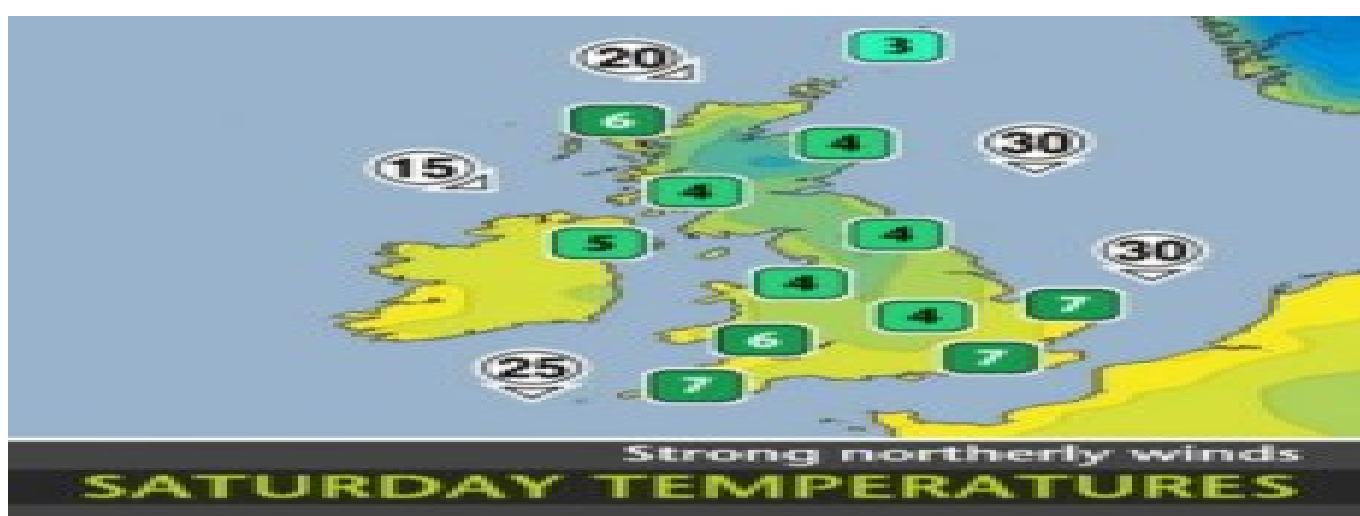
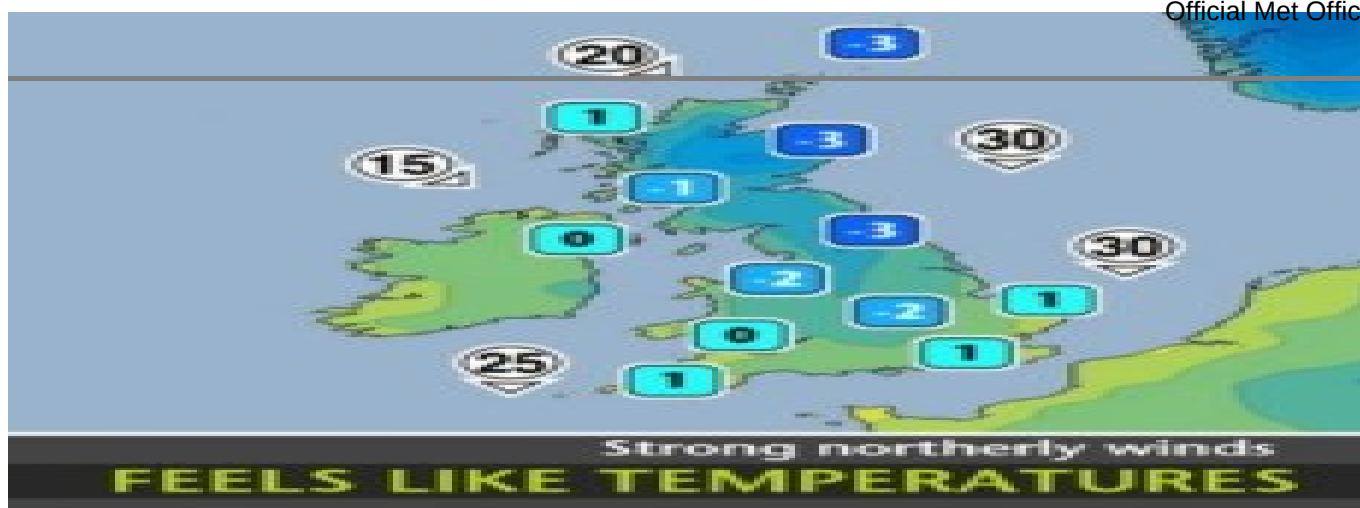
Cold air spreading southwards during Friday will result in showers turning to snow over high ground in the north of the UK and increasingly to lower levels towards Friday evening as an area of rain, sleet and snow moves southwards. Northern and eastern Scotland and perhaps the northeast of England could see accumulations of 1-4cm in places at low levels, whereas above around 150m 5-10cm could accumulate.

Other areas of the UK could see some snow Friday night into Saturday as the band of rain, sleet and snow transfers southwards with perhaps some small amounts of settling snow over high ground.

The combination of rain, sleet and snow and dropping temperatures will also lead to a risk of ice in places, particularly over high level routes on Saturday morning.

Strong to gale force north or northwesterly winds are also likely Friday night and Saturday which will enhance the cold feel in what will be the coldest air of the season so far. There is a risk of severe gales with gusts of 60-70mph for a time in the most exposed locations over higher routes and along the east and west coasts of the UK.

On Saturday, wintry showers will become confined to parts of Scotland and to eastern and western coastal counties with plenty of sunshine elsewhere. It will feel cold in marked contrast to the recent mild weather and the [second mildest start to November on record](#). Maximum temperatures by day will be 3-7 degrees Celsius but the wind will make it feel much colder. Overnight, minimum temperatures are likely to drop below freezing away from coasts, to give widespread frosts, with the risk of some icy patches where showers have fallen during the day.



Chief Operational Meteorologist Frank Saunders said: "The Met Office is forecasting strong winds and some snow for this weekend which means there is the likelihood of some difficult driving conditions and possible disruption to transport. With this in mind, if you have travel plans over the weekend, we'd

advise that you keep an eye on the [forecast](#) and [warnings](#) for your area.”

Although this will be the first widespread cold spell of the season, it is fairly typical for mid-late November and it's [not unusual to see snow](#) to lower levels in the north of the UK in late autumn. In recent years the most notable snow event was in [late November 2010](#) when there was lying snow across parts of northern and eastern Britain.

This cold spell will be fairly short-lived with temperatures expected to return to more typical values for the time of year early next week with the weather remaining unsettled.

Date Created

November 2015

2015 likely to be the warmest on record

Description

This year's global average surface temperature is likely to be the warmest on record according to data from the [Met Office](#), and is expected to continue the trend showing 15 of the top 16 warmest years have happened since 2001.

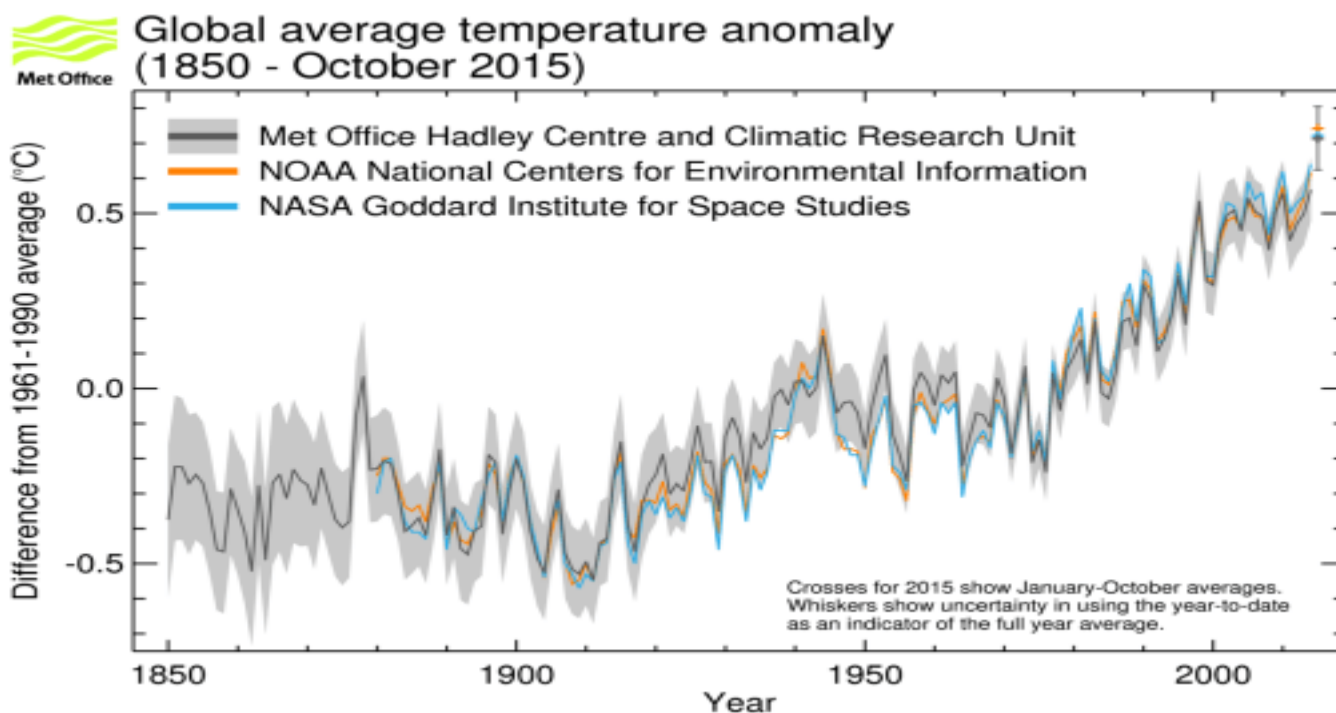
These findings concur with the [World Meteorological Organisation](#) (WMO) findings also announced today.

2015 a more 'clear-cut' record

Provisional figures up to the end of October show this year's near-surface global temperature as estimated from the HadCRUT dataset has been around 0.71 ± 0.1 °C above the 1961-1990 average of 14.0 °C.

This is in-line with the Met Office's forecast, issued in December 2014, which predicted 2015 global temperatures would be between 0.52 °C and 0.76 °C* above the 1961-1990 average, with a central estimate of 0.64 °C.

In HadCRUT, this year is clearly warmer than 2014, the previous nominal warmest year in the record, which was 0.57 ± 0.1 °C above the 1961-1990 average.



Colin Morice, a climate monitoring scientist at the Met Office, said: "Last year was nominally the

warmest year in our records but wasn't much higher than the other top warmest years. This year the temperature is markedly warmer than anything we've previously seen in the 166-year record, meaning its position at the top of the rankings looks set to be much more clear cut."

The HadCRUT dataset, jointly compiled by the Met Office and Climatic Research Unit at the University of East Anglia, uses data from more than 6,000 observation sites around the world and observations from ships and buoys at sea. It is recognised as one of the world's leading indices of global temperature.

Temperatures 1 °C above 'pre-industrial' for first time

2015 is set to mark the first time in the record that annual global temperatures reach 1 °C above 'pre-industrial' temperatures (taken here as an average of the 1850-1900 period*).

This is important because governments around the world have agreed the aim of trying to limit warming to 2 °C or less above pre-industrial to try to avoid the most dangerous impacts of climate change.

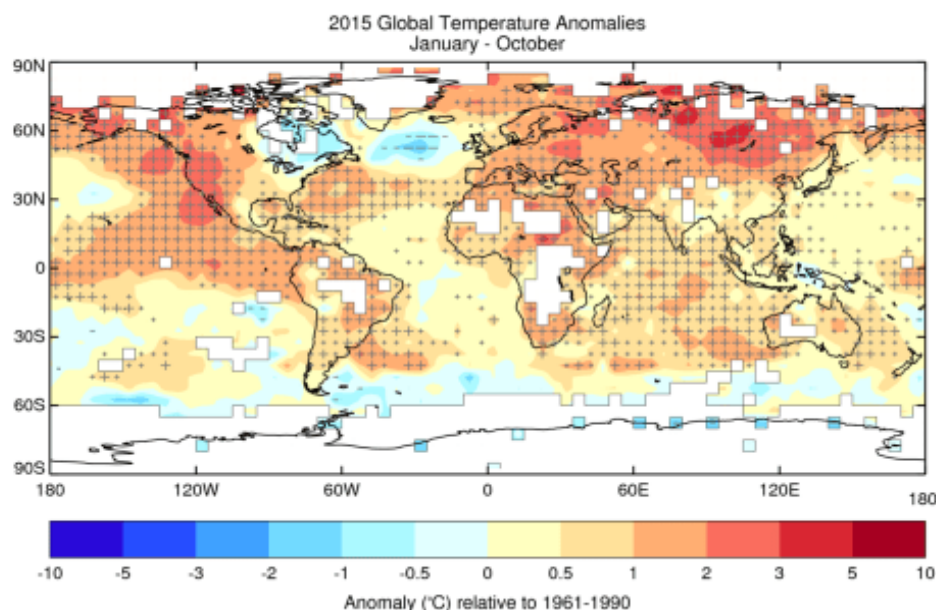
Leading independently-run datasets agree

Findings from HadCRUT are very similar to independently-run global temperature datasets compiled by the [US National Oceanic and Atmospheric Administration](#) and [NASA Goddard Institute of Space Studies](#).

Information from all three datasets is included in an announcement from the World Meteorological Organization (WMO) on global temperature, which also concludes this year is likely to be the warmest on record.

Where did 2015's warmth come from?

This year has seen a strong [El Niño](#) develop, with unusually warm sea surface temperatures across the Tropical Pacific, releasing heat into the atmosphere and pushing up global temperatures.



Global Temperature chart

While this has contributed to 2015's warmth, this is likely to be comparatively small compared to the long-term influence of warming caused by human greenhouse gas emissions.

This is backed up by research from the [Met Office](#) last year which showed global temperatures seen in recent years would be highly unlikely in a world without human influence on the climate.

What's in store for the year ahead?

Last year saw record or near record warmth globally, this year is warmer still and the current expectation is that next year will also be warm.

This is due to two factors: firstly, the ongoing warming due to human influence, and secondly although the current El Niño is expected to peak around the end of this year, its main warming influence is usually felt in the months afterwards. For example, a strong El Niño peaked at the end of 1997 – but it was 1998 which went on to become a record (at the time) by some margin.

There are other natural factors – such as changes in longer term ocean cycles or volcanic eruptions – which could act to reduce global temperatures next year, so there will always be some uncertainty.

The Met Office will give more detail in the expected global temperature for 2016 when it publishes its forecast in the latter part of December.

* While late 19th century temperatures are commonly taken to be indicative of pre-industrial, there is no fixed period that is used as standard and a variety of other periods have been used for observational and palaeo datasets. There are limitations in available data in the early instrumental

record, making the average temperature in the reference period less certain. There is not a reliable indicator of global temperatures back to 1750, which is the era widely assumed to represent pre-industrial conditions. Therefore 1850-1900 is chosen here as the most reliable reference period, which also corresponds to the period chosen by IPCC to represent a suitable earlier reference period.

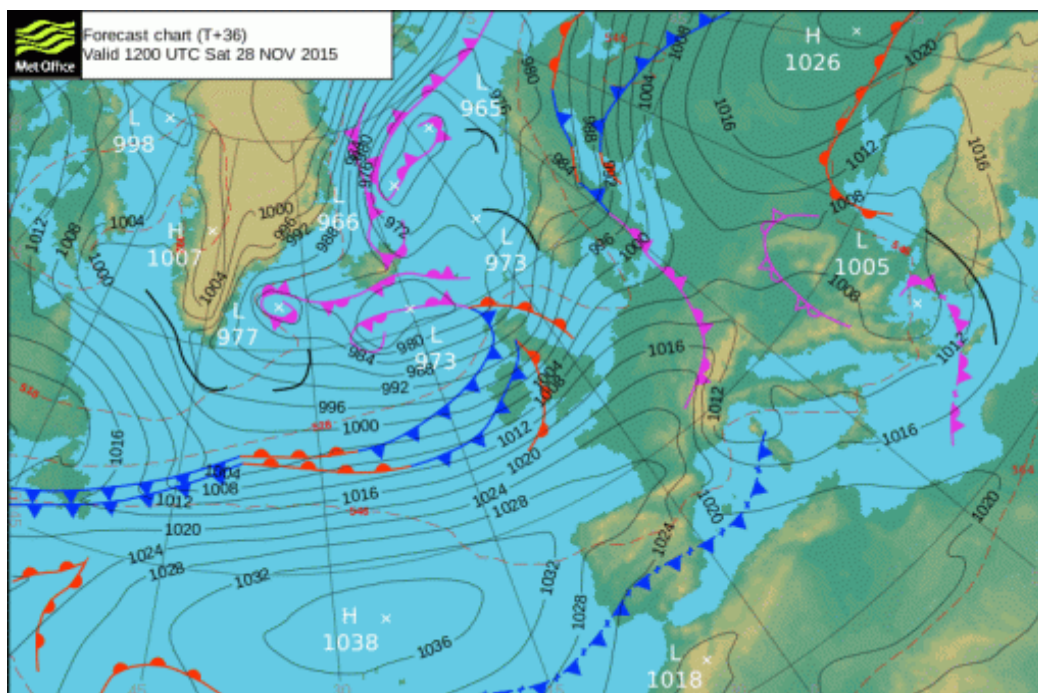
Date Created

November 2015

UPDATE : Saturday 28 November 2015 – Met Eireann names Storm Clodagh

This weekend the UK will see some unsettled, windy weather and the Met Office have issued a yellow be aware [National Severe Weather Warning](#) for wind for parts of the UK. However, we have not named the next storm despite some articles in the press suggesting this is the case.

There are a series of low pressure systems affecting the UK this weekend and we'll continue to keep an eye on these developing systems. You can keep up to date with the latest on our [forecast](#) pages.



Pressure chart for Saturday 28 November 2015 at midday

The next few days are looking unsettled:

Friday: windy with a band of heavy rain moving southeastwards, clearing to sunshine and showers. Turning cold following the rain with wintry showers over hills in the north, but with snow reaching increasingly to lower levels in the north overnight.

Saturday: chilly to start with some frost and a risk of icy patches, then an unsettled, windy day with showers or longer spells of rain, the showers wintry over the higher ground of Scotland. Gales will develop, particularly along coasts exposed to the west or southwesterly winds where they could be locally severe, though this is not unusual for this time of year.

Sunday: it will remain windy and further showers are expected. A spell of rain looks likely to push across northern parts during the day, followed by further showers, increasingly falling as snow to low levels in Scotland, mostly in the north. Gales are likely, especially in the west, with severe gales along western coasts. Temperatures around average in the south, a little below in the north and feeling cold in the wind.

Next week looks to bring further unsettled weather, as low pressure continues to control the UK's weather. It will however turn milder for a time.

Date Created

November 2015

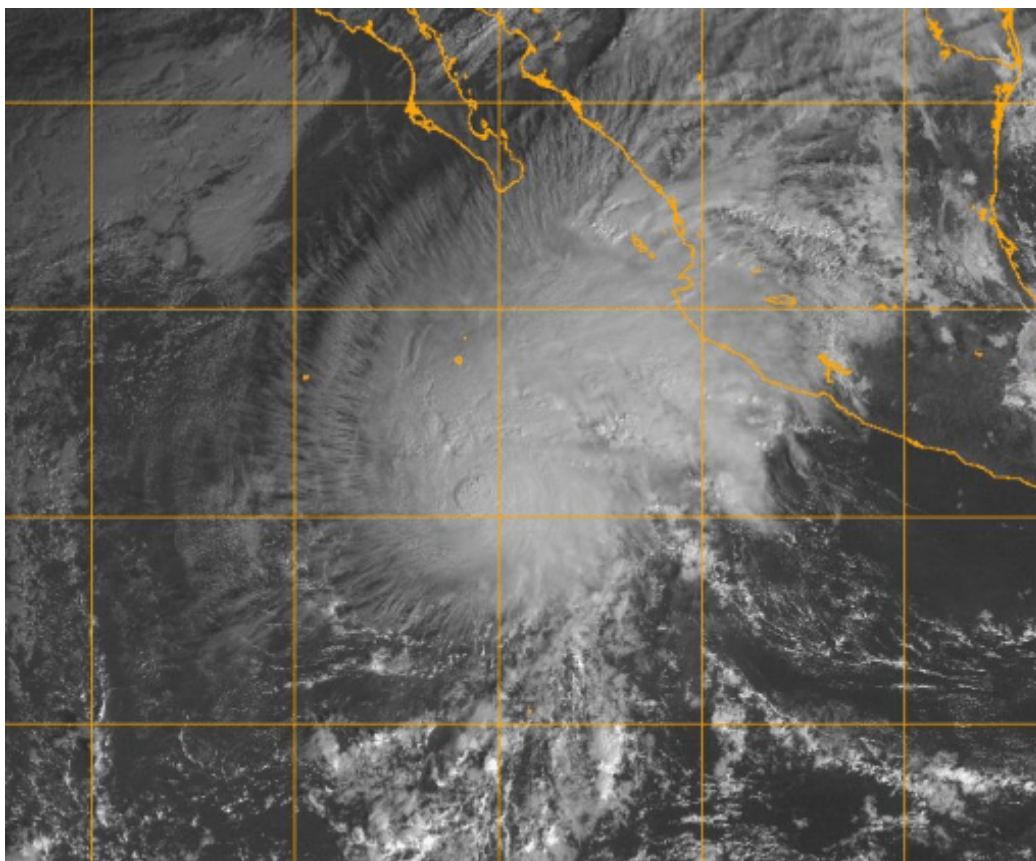
Late Season Hurricane Sandra Heading for Mexico

Description

The North Pacific Ocean has seen exceptional levels of [tropical cyclone](#) activity this season as reported in this blog over the last few months. By the end of November it is usual to see the season drawing to a close in most parts of the northern hemisphere. However, the unusual conditions in the eastern North Pacific due to the ongoing El Niño has resulted in a couple of late season tropical cyclones.

Tropical Storm Rick was relatively weak, but has been immediately followed by Sandra which rapidly strengthened into a category 4 hurricane with winds near 145 mph and a central pressure of 935 mb. The last time a hurricane formed so late in the season in the eastern North Pacific was back in 1983 when Hurricane Winnie developed in December. However, Sandra is much stronger than Winnie and has become the strongest hurricane on record to have formed in the region so late in the season.

It is barely a month since Hurricane Patricia came ashore over Mexico as a category 5 hurricane producing a narrow swathe of severe damage to mostly rural areas, but avoiding major cities. Sandra is forecast to make landfall on Saturday, but unlike Patricia is expected to rapidly weaken as it approaches the coast. Thus severe impacts from wind are not expected, although the storm could still produce a lot of heavy rain as it comes ashore. If Sandra crosses the coast as a tropical storm it will be the latest in the year that a landfall has ever been recorded over Mexico.



Hurricane Sandra at 1445 UTC on 26 November 2015
Image courtesy of US Naval Research Laboratory

Hurricane Sandra has added to an already exceptionally active tropical cyclone season seen across the northern hemisphere (particularly the Pacific Ocean). This high activity is primarily as a result of the strong El Niño which has existed for the last few months. This has raised sea surface temperatures well above normal in parts of the Pacific Ocean and also made atmospheric conditions conducive to development of frequent and strong tropical cyclones.

Across the northern hemisphere as a whole there have now been 26 tropical cyclones which have attained category 4 or 5 on the [Saffir-Simpson Hurricane Wind Scale](#) (one-minute averaged winds of 130 mph or more). This is eight more than the previous record set in 2004. In the eastern North Pacific (east of the Dateline) there have been 10 hurricanes reaching this intensity which is two more than the previous record set in 1997. It must be noted that records relate to the era of reliable satellite data coverage from the 1960s and 1970s onwards.

Official warnings for the latest tropical cyclones in the East Pacific are produced by the US [National Hurricane Center](#). The Met Office routinely supplies predictions of cyclone tracks from its global forecast model to regional meteorological centres worldwide, which are used along with guidance from other models in the production of forecasts and guidance. We also provide updates on current tropical storms via [@metofficestorms](#) on Twitter.

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Warm November on course to equal record in England

Description

UPDATE – 3 December 2015 – [Provisional full month stats show that November 2015 was the dullest on record](#)

Early provisional statistics* (1- 25 November) show November has been notable for its mild weather.

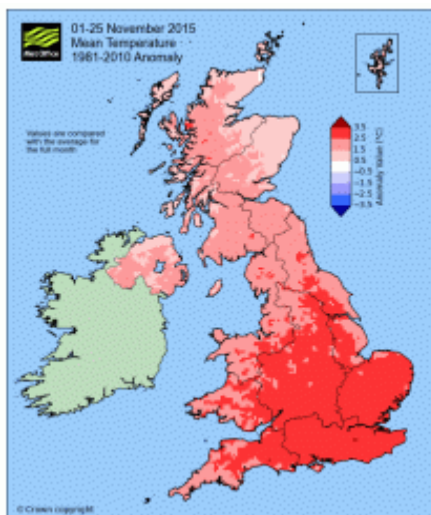
Overall, temperatures for the UK have been 2.2°C above the November average, with this month on course in England to equal the previous warmest November in 1994 (9.5°C).

The other UK nations have been similarly warm

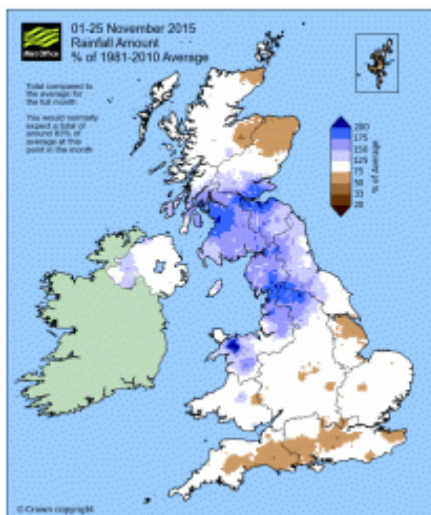
- the mean temperature of 9.2°C in Wales currently the second warmest November on record here – behind 1996 (9.4°C)
- the mean temperature of 6.6°C is currently joint third warmest in Scotland – behind 7.7°C in 2011 and 7.5°C in 1994
- the mean temperature of 8.0°C in Northern Ireland is currently the fourth warmest on record – behind 8.8°C in 1994, 8.7°C in 2011 and 8.1°C in 2007

Apart from a short but marked cold spell on 21- 23 November there has been an absence of frosts in almost all areas, largely because of a humid, cloudy south-westerly airflow. This has also meant that most areas have seen very little sunshine. Most areas have had typical rainfall amounts for the time of year, but north-west Wales, north-west England and Southern Scotland have had well above average totals. There have also been a number of very windy episodes, including the impact of storms [Abigail](#) and [Barney](#).

Of particular note was the temperature of 22.4°C recorded at Trawsgoed in Wales on 1 November and a remarkable overnight temperature of 16.1°C at Murlough in Northern Ireland on 9-10 November.



1-25 Nov mean temperature anomaly 1981-2010



1-25 Nov rainfall anomaly 1981-2010

Parts of southern and central Scotland, the Lake District, Pennines and Snowdonia have had over 150% of their whole-month rainfall average. North-east Scotland and parts of southern and eastern England have had slightly less than would be expected up to this point in the month. South-west Scotland has already had enough rain to make this the 5th wettest November for that region in a series since 1910.

Sunshine has been well below normal with just 33 hours of sunshine up to the 25th across the UK. This means November 2015 is heading toward being the dullest on records going back to 1929 – the dullest currently being 1962 with 39 hours.

	Mean temp (°C)		Sunshine (hrs)		Rainfall (mm)	
	Actual	Diff from 81-10 avg	Actual	% of 81-10 avg	Actual	% of 81-10 avg
1-25 Nov 2015*						
UK	8.4	2.2	33	58	136.4	111
England	9.5	2.6	34	53	93.3	100
Wales	9.2	2.4	33	58	197.4	122
Scotland	6.6	1.6	31	68	192.9	111
N Ireland	8	1.5	37	68	127.2	111

You can find out what the rest of the year has been like on our [climate pages](#).

*Data from the Met Office's UK digitised records dating back to 1910.

Please note that these provisional figures, especially for rainfall and sunshine, are subject to revision. Anomalies are expressed relative to the 1981-2010 averaging period.

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Met Éireann names Storm Clodagh

Description

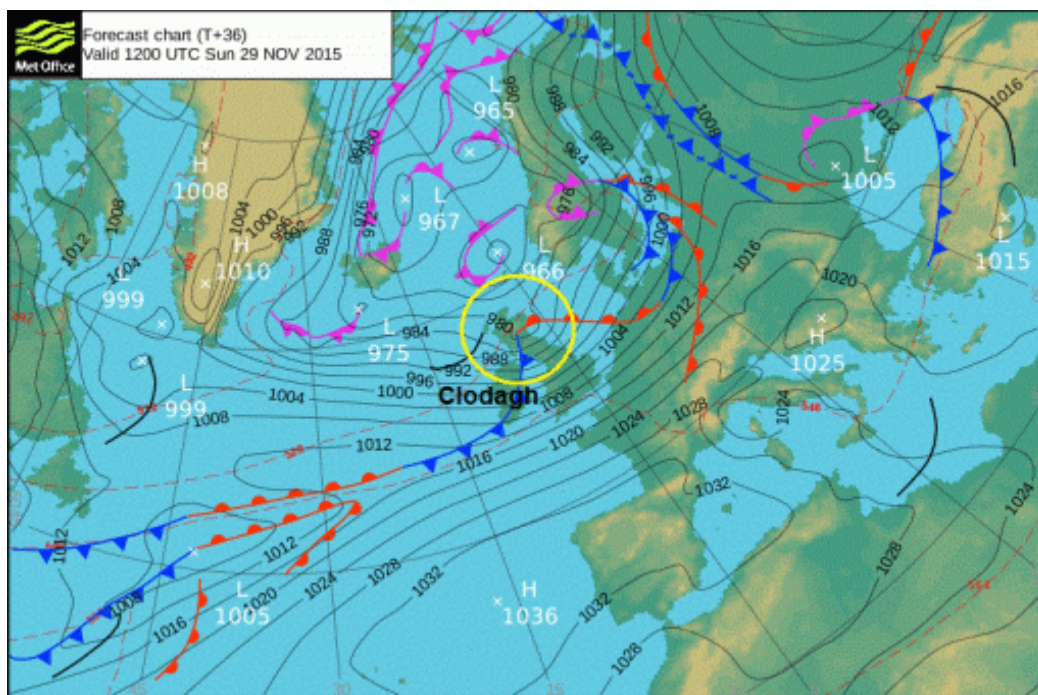
The current unsettled spell of weather continues and the low pressure system that is forecast to affect Ireland and the UK on Sunday has been officially named Storm Clodagh by [Met Éireann](#).

This makes it the third officially named storm of the joint Met Office Met Éireann [pilot project](#) to name storms that affect the UK and Ireland through the autumn and winter 2015/16.

Storms can be named by either the Met Office or Met Éireann.

Met Éireann named the storm on Saturday 28 November having issued an Orange warning for severe gales across Eire for Sunday.

The Met Office has issued a yellow be aware [National Severe Weather Warning](#) for wind for a medium likelihood of low impacts from severe gales across some parts of Northern Ireland, Wales, England and parts of southern Scotland.



Pressure chart for Sunday 29 November 2015 at midday

The strongest winds are expected to reach Northern Ireland around dawn on Sunday, and most areas by the end of the morning, before gradually subsiding from the west during the afternoon and evening.

There remains some uncertainty with the track of this low and the precise wind speeds and areas to be affected. You can keep up to date with the latest on our [forecast](#) pages.

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